



Mercury Fever Thermometers: What You Need to Know

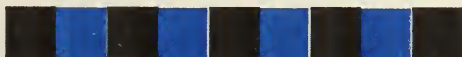
Why are mercury fever thermometers a problem?

Mercury, even in small amounts, can significantly impact the environment. According to the U.S. Environmental Protection Agency, the amount of mercury in a typical mercury thermometer (0.7 grams) is enough to contaminate all the fish in a lake with a 20-acre surface area. If a mercury thermometer breaks and is not cleaned up properly, the spill can create a potential risk of dangerous exposure to mercury vapor.



What are the human health effects of mercury?

Mercury affects the brain, spinal cord, kidneys and liver. It affects the ability to feel, see, taste and move. Symptoms of severe short-term exposure are numbness around the mouth, tunnel vision, tingling fingers and toes. Long-term, high-level exposure to mercury can cause neurological and kidney damage, vision problems, behavior abnormalities and coma.



Mercury Exposure

How are humans exposed to mercury? The most likely form of mercury exposure is from eating fish contaminated with methylmercury. Mercury stays in the environment for a long time. Small organisms absorb mercury from water and sediment; smaller fish then eat these organisms. Predator fish eat the smaller fish and methylmercury is accumulated up the food chain. Larger fish have the highest amounts of methylmercury stored in their bodies.



Should I eat fish containing high levels of mercury? The Illinois Department of Public Health has issued a fish consumption advisory that cautions pregnant and nursing women, women of childbearing age and children younger than 15 years of age to eat no more than one meal per week of predator fish. Predator species found in Illinois waters include all species of black bass (largemouth, smallmouth and spot-

ted), striped bass, white bass, hybrid bass, wall-eye, sauger, saugeye, flathead catfish, muskellunge and northern pike. The U.S. Food and Drug Administration also recommends that pregnant and nursing women, women of child-bearing age and children younger than 15 years of age not eat shark, swordfish, king mackerel, and tile fish. If eaten regularly, fish containing high levels of methylmercury could harm a fetus' developing nervous system. Damage to the central nervous system may result in lower intelligence, abnormal muscle tone and slowed motor function.

Handling Spilled Mercury

How do I properly clean up a broken mercury thermometer or other mercury spill?

For large spills (spills of more mercury than contained in the typical mercury fever thermometer), contact the Illinois Department of Public Health at 800-545-2200 or the Mercury Hotline 888-522-1282.

For small spills (the amount of mercury in a typical mercury fever thermometer or less):

Secure the area, gather materials and prepare to recover mercury.

- Immediately after a spill, keep all people and pets away from the spill area.
- To minimize the mercury that vaporizes, turn off any heaters and turn up any air conditioners.

- Ventilate the area by opening windows and, when possible, keep open for at least two days.
- Never use a vacuum to clean up a mercury spill. Not only will the mercury contaminate your vacuum; the heat from the vacuum will evaporate the mercury, further distributing it throughout the house. Similarly, never use a broom to clean up mercury.



- It will only distribute the mercury into smaller beads, and will contaminate the broom.
- Assemble the necessary supplies before attempting a clean up.
 - These include gloves, an eyedropper, and two stiff pieces of paper or cardboard, two plastic bags, a large tray or box, duct tape or packing tape, a flashlight and a wide mouth container. Remember that any tools used for clean up should be considered contaminated and disposed of with the mercury.
 - Do not touch the mercury.
 - Remove all jewelry and watches from your hands, as mercury will bond with the metal.
 - Put on gloves, preferably rubber gloves, to minimize contact with mercury.
 - Use the flashlight to locate the mercury. The light will reflect off the mercury beads and make them easier to find.

Clean up the spill. Different surfaces require different clean up procedures.

- On a hard surface or tightly woven fabric use stiff paper to push beads of mercury together. Use the eyedropper to suction the beads of mercury or, working over the tray to catch any spills, lift the beads of mercury with the stiff paper. Carefully place the mercury in a wide mouth container. Pick up any remaining beads of mercury with sticky tape and place contaminated tape in a plastic bag along with the eyedropper, stiff paper, and gloves. Label the bag as mercury waste. Place this bag and sealed container in the second bag, label it as mercury waste.
- On a carpet or rug, the mercury-contaminated section should be cut out. This cutout section, along with all cleanup items, should be placed in a plastic bag. Label it as mercury waste.
- In water, mercury will sink to the bottom. If possible, remove as much water without disturbing the mercury and recover the mercury with an eyedropper. Place in a wide mouth container, close the lid and seal it with tape. Label it as mercury waste. In a drain, mercury will get caught in your sink trap. Place a tray under the trap and piping. Working over the tray, remove the trap and pour the contents into a large mouth container. Close the container lid and seal with tape. Label it as mercury waste.



How do I dispose of mercury or mercury containing items?

Bring your mercury or mercury containing items to a household hazardous waste collection facility. A schedule of household hazardous waste collections sponsored by the Illinois Environmental Protection Agency can be found at <http://www.epa.state.il.us/land/hazardous-waste/household-haz-waste/hhwc-schedule.html>. You can also contact your local Solid Waste Management Agency. Local governments often sponsor household hazardous waste collections.

Thank you to Health Care Without Harm (www.noharm.org) for allowing use of portions of *Going Green: A Resource Kit for Pollution Prevention in Health Care*.

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POLLUTION PREVENTION

For more information on pollution prevention, please contact the Illinois Environmental Protection Agency's Office of Pollution Prevention at 217/782-8700 or visit our web page at <http://www.epa.state.il.us/P2/>.